REMARKS/ARGUMENTS

After the foregoing Amendment, claims 25, 27, 29-32, 34 and 36-38 are currently pending in this application. Claims 1-24, 26-28, 33 and 35 are canceled. Claims 25 and 32 are amended.

Examiner Interview

Applicant thanks the Examiner for granting a telephonic interview with the Applicant's representative on April 13, 2010. During the telephonic interview the Examiner expressed that that there is a difference of opinions regarding the interpretation of the claim invention in view of Hou et al.

Claim Rejections - 35 USC §103

Claims 25, 29-32 and 36-38 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,324,184 B1 to Hou et al. (hereinafter "Hou") in view of U.S. Patent No. 6,085,241 to Otis (hereinafter "Otis").

The Applicant respectfully disagrees.

Hou discloses a method for allocating uplink bandwidth to subscriber units. A MAC management entity maintains a historical record of bandwidth usage for each subscriber unit such that users with low usage levels are given a higher priority when requesting an otherwise limited bandwidth level (column 11, lines 50-55). The

maximum bandwidth that a user is assigned is limited by comparing the assigned bandwidth to a ceiling value (column 11, lines 31-36 and 46-47). The subscriber units do not need to send a signal to the central controller to request bandwidth or report the subscriber unit buffer size (column 8, lines 34-36).

According to Hou, a traffic count is determined for each subscriber unit by counting the number of slots used in a control interval where the slot usage rate corresponds to a bandwidth (column 2, lines 7-12). In contrast to the present claims 25 and 32 as amended, Hou fails to teach "comparing a time allocation of continuously used channel resources for each of the subscriber units against a predetermined time threshold of allowed time and reducing the priority level when the time threshold is exceeded". Instead, Hou is concerned with a total number of time slots (C(i)) actually used over a fixed interval to transmit upstream data (col. 9 lines 49-53). The ratio of used time slots over allocated time slots is compared to a utilization threshold T1 (col. 61-63). Hou does not teach anything about a user's continuous use of channel resources. It is implicitly understood that some of the allocated time slots (B(i)) are unused, by Hou's disclosure of a utilization ratio threshold of 85%. Moreover, Hou describes a possible scenario in which some users may still use their bandwidth. Also, Hou teaches determination of an allocation in terms of average data rate over a control interval (col. 10, lines 3-8), further

suggesting a lack of concern for a predetermined time of allowed usage threshold applied to a continuous usage of uplink channel resources.

Furthermore Hou fails to teach or suggest assigning a priority level for each of the detected requests, the priority level associated with the subscriber unit transmitting the request, wherein the priority level of the subscriber unit depends on the priority level of all inactive users, on a continuity of resource demand, on historical usage of base station resources and on the instantaneous demand for access, and wherein the ratio of subscriber units assigned to different priority levels is respected independently of the total number of subscriber units assigned at each priority level. Hou merely discloses that a MAC management entity monitors bandwidth usage in upstream channels and adjusts the assigned bandwidth for each user accordingly (see Hou, abstract and column 11, line 64 to column 12, line 1). Although Figures 2 and 5 in Hou disclose a bi-directional communication network, Hou merely discloses performing dynamic bandwidth allocation in the uplink direction (see column 2, lines 57-60 and column 3, lines 15-19).

Otis teaches a method for monitoring and controlling network-user bandwidth usage and costs, and a bandwidth manager for network segments comprising a pair of media access controllers (column 2, lines 19-53). The Examiner cites column 7, line 60 through column 8, line 8, of Otis as teaching that limiting maximum bandwidth allocations to particular connections that maintain excessive

connection bandwidths over a prolonged period such that a single connection cannot abuse the overall connection bandwidth of the system to the charging of other connections (col. 7, line 60 – col. 8 line 8). However, Otis is not concerned with continuous bandwidth connection usage as recited in the amended claims 25 and 32 and fails to teach that the priority levels assigned depend on the instantaneous demand for access. Instead, Otis teaches control of the "maximum duty cycle that can be elicited by any one connection device", which is the net amount of active usage over a period, not a period of continuous bandwidth usage. For example, if a user's connection consisted of multiple cycling of active bandwidth usage and inactive bandwidth operation, Otis teaches that each of the periods for the active cycles would be added together to determine if the bandwidth usage has been exceeded, without regard for the maximum single block of time that the user was in the active mode. Furthermore, Otis fails to teach and that the ratio of subscriber units assigned to different priority levels is respected independently of the total number of subscriber units assigned at each priority level. Thus, both Otis and Hou, treated individually and in combination, teach something different than what is recited in claims 25 and 32.

Because the combination of Hou and Otis fails to teach or suggest all of the elements of the amended claims 25 and 32, these claims are patentable over Hou

and Otis. Claims 29-31 and 36-38 depend from claim 25 and 32 and should therefore be patentable over the combination of Hou and Otis for the above provided reasons.

Claims 27 and 34 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hou et al. in view of Otis as applied to claims 25 and 32, and further in view of U.S. Patent No. 6,473,793 to Dillon et al. (hereinafter "Dillon").

Dillon discloses a hybrid gateway including the functionality that allows bandwidth on a network to be dynamically allocated and enforced. According to Dillon, the network compares the data transferred to a user with stored thresholds to implement the throttling of bandwidth based on historical usage patterns (see column 17, lines 16-19). In Dillon, the stored thresholds indicate a certain amount of data instead of predetermined time of allowed usage threshold measuring the continuous allocation of channel resources as recited in the pending claims. Unlike Dillon, the pending claims measure the overuse of channel resources based on the continuous allocation of the channel resources.

Claim 27 has been canceled and claims 29-31, 34 and 36-38 are dependent upon claims 25, 29, 32 and 36 and the Applicant believes these claims are allowable over the cited references of record for the same reasons provided above.

Based on the arguments presented above, withdrawal of the 103 rejection of claims 25, 29-32, 34 and 36-38 is respectfully requested.

Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephonic interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendment and remarks, Applicant respectfully submit that the present application is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

Carlo Amalfitano

By /Anthony L. Venezia/
Anthony L. Venezia
Registration No. 48,382

Volpe and Koenig, P.C.
United Plaza
30 South 17th Street
Philadelphia, PA 19103-4009
Telephone: (215) 568-6400
Facsimile: (215) 568-6499

ALV/VAC/pp